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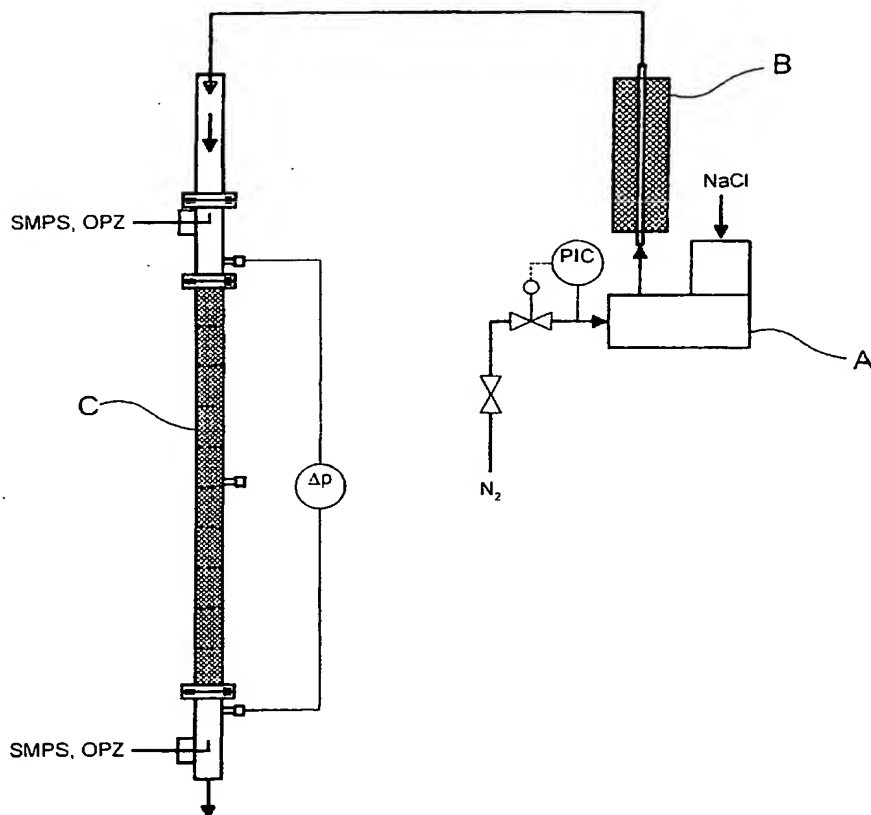
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[Fortsetzung auf der nächsten Seite]

(54) Title: IN SITU RECOATING OF CATALYST BEDS

(54) Bezeichnung: IN-SITU NEUBESCHICHTUNG VON KATALYSATORSCHÜTTUNGEN



(57) Abstract: The invention relates to a method for coating internal fittings in a reactor, except for electrically heatable, at least partly open-cell foams, with a catalytically active material or a precursor thereof. According to said method, aerosol containing the catalytically active material or the precursor thereof as a dispersed phase is provided and is directed through the reactor at a speed which is set in such a way that the dispersed phase of the aerosol deposits on the internal fittings of the reactor.

(57) Zusammenfassung: Die Erfindung betrifft ein Verfahren zur Beschichtung von Einbauten in einem Reaktor, ausgenommen die Beschichtung von elektrisch beheizbaren, zumindest teilweise offenzelligen Schaumstoffen, mit einem katalytisch aktiven Material oder einer Vorstufe hierfür, wonach man Aerosol bereitstellt, das als disperse Phase das katalytisch aktive Material oder die Vorstufe hierfür enthält, und das Aerosol mit einer Geschwindigkeit durch den

Reaktor leitet, die man so einstellt,

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(81) **Bestimmungsstaaten** (soweit nicht anders angegeben, für jede verfügbare nationale Schutzrechtsart): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

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Veröffentlicht:

— mit internationalem Recherchenbericht

Zur Erklärung der Zweibuchstaben-Codes und der anderen Abkürzungen wird auf die Erklärungen ("Guidance Notes on Codes and Abbreviations") am Anfang jeder regulären Ausgabe der PCT-Gazette verwiesen.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,Y	US 5 821 187 A (ZAHN WOLFGANG ET AL) 13 October 1998 (1998-10-13) the whole document ----	1-13
Y	EP 0 574 173 A (LITTMAN HOWARD ;MORGAN MORRIS H III (US); JOVANOVIC STEVAN DJ (US)) 15 December 1993 (1993-12-15) page 2, line 1 -page 2, line 29 page 6, line 14 -page 6, line 16 ----	1-13
P,X	WO 03/080893 A (JUERGENSEN HOLGER ;AIXTRON AG (DE); HEUKEN MICHAEL (DE)) 2 October 2003 (2003-10-02) page 12, line 15 -page 13, line 5 ----- -/--	1



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Patent family members are listed in annex.

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EP2004/003497

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
E	WO 2004/036004 A (BOSCH GMBH ROBERT ; SCHALLER JOHANNES (DE); LUEDERS HARMUT (DE); MA) 29 April 2004 (2004-04-29) page 5, line 29 -page 5, line 35 page 6, line 19 -page 6, line 20 ---	1-5, 7, 8, 10-13
A	US 2002/029955 A1 (BISWAS PRATIM ET AL) 14 March 2002 (2002-03-14) ---	
T	DE 102 40 605 A (FAGERDALA DEUTSCHLAND GMBH) 26 February 2004 (2004-02-26) -----	

INTERNATIONAL SEARCH REPORT

Information on patent family members

ional Application No

EP2004/003497

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5821187	A	13-10-1998	DE 19507219 C1 FR 2731164 A1 GB 2298375 A ,B IT RM960135 A1 US 6099644 A	15-05-1996 06-09-1996 04-09-1996 28-08-1997 08-08-2000
EP 0574173	A	15-12-1993	US 5254168 A AT 135260 T CA 2096924 A1 DE 69301774 D1 DE 69301774 T2 EP 0574173 A1 JP 6047321 A	19-10-1993 15-03-1996 05-12-1993 18-04-1996 24-10-1996 15-12-1993 22-02-1994
WO 03080893	A	02-10-2003	DE 10212923 A1 WO 03080893 A1	08-01-2004 02-10-2003
WO 2004036004	A	29-04-2004	DE 10247987 A1 WO 2004036004 A1	29-04-2004 29-04-2004
US 2002029955	A1	14-03-2002	NONE	
DE 10240605	A	26-02-2004	DE 10240605 A1	26-02-2004

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